

Appl. No. 10/632,190  
Amdt. Dated 1/3/07  
Reply to Office Action of 9/5/06

Remarks & Arguments

In the Office Action, the Examiner noted that Claims 1-20 are pending in the application, and that Claims 1-20 are rejected. By this amendment, Claim 6 has been amended. The amendment to the claim does not add new matter to the application. The Examiner's rejections are traversed below.

*Rejections Under 35 U.S.C. 101*

Claims 1-20 stand rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. The Examiner alleges that the independent claims 1, 6 and 14 deals with simple abstract ideas. Contrary to the Examiners allegation, claims drawn to a process containing mathematical algorithms are patentable if the process produces a useful, concrete, tangible result without pre-empting other uses of the mathematical principle. See MPEP 2106. Independent Claims 1, 6 and 14 produce a useful, concrete and tangible result of determining similarity between a first string and a second string, without pre-empting other uses of the Levenshtein matrix, Levenshtein distance, least common substring. Levenshtein score or least common substring score.

Applicant therefore respectfully submits that Claims 1-20 are directed to statutory subject matter. Accordingly, Applicant requests that the 35 U.S.C. 101 rejection of Claims 120 be withdrawn and that Claim 1-20 be allowed.

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*Rejections Under 35 U.S.C. 103*

Claims 1-5 stand rejected under 35 U.S.C. 103 as being obvious in view of the combination of U.S. Patent No. 6,742,124 to Kilpatrick and U.S. Patent No. 6,697,844 to Chan. Applicant respectfully traverses the rejection of Claims 1-5 on the basis that the relied upon references teach away from the combination thereof.

Applicant notes that the prior art must be considered in its entirety, including disclosures that teach away from the claims (MPEP 2141.02). Kilpatrick discloses the detection of anomalies in the stream of system calls. The anomalies are the **difference** between a current sequence of system calls and expected sequence of system calls. Furthermore, Kilpatrick discloses utilizing a levenshtein matrix/levenshtein distance to measure the “magnitude of the difference between a system call sequence in a stored profile and the system call sequence that is generated by a program (col. 9, lines 26-30). In contrast, Chan disclose utilizing a longest common substring to measure similarities. One skilled in the art appreciates that a technique of measuring the difference teaches away from determine a similarity. Accordingly, Kilpatrick clearly teaches away from the Examiner’s suggestion to combine the Kilpatrick with Chan.

Applicant therefore respectfully submits that Claim 1 is patentable over Kilpatrick in view of Chan. Accordingly, Applicant requests that the obviousness rejection of Claim 1 be withdrawn and that Claim 1 be allowed.

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**Claims 2-5** are allowable by virtue of their dependency on respective base Claim 1, as well as the additional elements they recite. Accordingly, Applicant also respectfully requests that the obviousness rejection of Claims 2-5 be withdrawn and that Claims 2-5 be allowed.

Claims 6-20 stand rejected under 35 U.S.C. 103 as being obvious in view of the combination of U.S. Patent No. 6,742,124 to Kilpatrick, U.S. Patent Application Publication No. 2003/0004716 to Haigh, and U.S. Patent No. 6,697,844 to Chan. Applicant respectfully traverses the rejection of Claims 6-20 on the basis that the relied upon references teach away from the combination thereof.

With regard to Claim 6, the Applicant again notes that the prior art must be considered in its entirety, including disclosures that teach away from the claims (MPEP 2141.02). Kilpatrick discloses the detection of anomalies in the stream of system calls. The anomalies are the **difference** between a current sequence of system calls and expected sequence of system calls. Furthermore, Kilpatrick discloses utilizing a levenshtein matrix/levenshtein distance to measure the “magnitude of the difference between a system call sequence in a stored profile and the system call sequence that is generated by a program (col. 9, lines 26-30). In contrast, Haig discloses utilizing natural language algorithms or techniques to determine similarity factors for two or more sentences. The overall similarity may be determined from the weighting of the similarity factors. Chan disclose utilizing a longest common substring to measure similarities. One skilled in the art appreciates that a technique of measuring the difference teaches away from

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determine a similarity. Accordingly, Kilpatrick clearly teaches away from the Examiner's suggestion to combine Kilpatrick with Haigh and/or Chan.

Applicant therefore respectfully submits that Claim 6 is patentable over Kilpatrick in view of Haigh and Chan. Accordingly, Applicant requests that the obviousness rejection of Claim 6 be withdrawn and that Claim 6 be allowed.

**Claims 7-13** are allowable by virtue of their dependency on respective base Claim 6, as well as the additional elements they recite. Accordingly, Applicant also respectfully requests that the obviousness rejection of Claims 7-13 be withdrawn and that Claims 7-13 be allowed.

With regard to Claim 14, the Applicant again notes that the prior art must be considered in its entirety, including disclosures that teach away from the claims (MPEP 2141.02).

Kilpatrick discloses the detection of anomalies in the stream of system calls. The anomalies are the **difference** between a current sequence of system calls and expected sequence of system calls. Furthermore, Kilpatrick discloses utilizing a levenshtein matrix/levenshtein distance to measure the "magnitude of the difference" between a system call sequence in a stored profile and the system call sequence that is generated by a program (col. 9, lines 26-30). In contrast, Haig discloses utilizing natural language algorithms or techniques to determine similarity factors for two or more sentences. The overall similarity may be determined from the weighting of the similarity factors. Chan disclose utilizing a longest common substring to measure similarities. One skilled in the art appreciates that a technique of measuring the difference teaches away from

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determine a similarity. Accordingly, Kilpatrick clearly teaches away from the Examiner's suggestion to combine Kilpatrick with Haigh and/or Chan.

Applicant therefore respectfully submits that Claim 14 is patentable over Kilpatrick in view of Haigh and Chan. Accordingly, Applicant requests that the obviousness rejection of Claim 14 be withdrawn and that Claim 14 be allowed.

**Claims 15-20** are allowable by virtue of their dependency on respective base Claim 14, as well as the additional elements they recite. Accordingly, Applicant also respectfully requests that the obviousness rejection of Claims 15-20 be withdrawn and that Claims 15-20 be allowed.

#### Conclusion

For all the reasons advanced above, Applicants respectfully submit that the present application is in condition for allowance and that action is earnestly solicited. The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

The Commissioner is hereby authorized to charge any additional fees, which may be required for this amendment, or credit any overpayment, to Deposit Account 23-0085. In the event that an extension of time is required, or may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to

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charge any fee for such an extension of time or credit any overpayment for an extension of time  
to Deposit Account 23-0085.

Respectfully submitted,

WAGNER, MURABITO & HAO, LLP

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Eric J. Gash

Eric J. Gash  
Registration No. 46,274  
Tel.: (408) 938-9060